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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,312	04/18/2006	Johannus Leopoldus Bakx	NL 031238	9405

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EXAMINER

CHU, KIM KWOK

ART UNIT	PAPER NUMBER
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2627

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04/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,312	BAKX, JOHANNUS LEOPOLDUS	
	Examiner	Art Unit	
	Kim-Kwok CHU	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed on 2/20/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 8-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/18/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2627

Continued Examination after Final Rejection

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 20, 2009 has been entered.

Response to Remarks

2. Applicant's Remarks filed on February 20, 2009 have been fully considered but they are not persuasive. Applicant amends the rejected independent Claims 1 and 15. In the Remarks, Applicant states that the prior art (U.S. Patent 6,091,689) of Taniguchi's photodiodes are presumably both operating and detect the received light (page 10 of the Remarks, lines 14-16). Therefore, the prior art of Taniguchi does not teach the feature "only a first detector unit is operative, as determined by an identity of a first laser in use" (page 10, last 9 lines). Accordingly, Applicant regards the prior art of Taniguchi's same group of photodetectors PD1 and PD2 as different optical detector units. In fact, the prior art of

Art Unit: 2627

Taniguchi teaches two separate groups of optical systems such as LC1 and LC2 (Figs. 7 and 8). Within the optical systems LC1 and LC2, each of Taniguchi's laser 4 as illustrated in Fig. 7 is different in wavelength (column 5, lines 53-56). For example, one of the laser 4's wavelengths can be 780 nm, 635 nm or blue light (column 1, lines 13-21). In other words, each of laser 4 and its respective photodetectors PD1, PD2 are operate together according to a respective disc format/specification. This configuration satisfies Applicant's claimed limitation "only a first detector unit of the at least two optical detector units is operative, as determined by an identity of a first laser in use of the at least two lasers". In such case, the prior art of Taniguchi teaches a first detector unit (PD1 and PD2 of LC1) operative, as determined by an identity of a first laser (one of laser 4 in LC1) in use of the at least two lasers (one laser in LC1 and another laser in LC2)... as required in Applicant's Claimed 1 and 15.

Furthermore, Applicant states that the prior art of Taniguchi does not teach the amended feature "said output node being directly connected to a processing terminal of the signal processing circuit so that the processing terminal is directly connected to both the at least one current output of the first optical detector unit and the corresponding current output of

Art Unit: 2627

the second optical detector unit" (page 11 of the Remarks, last paragraph). Accordingly, the prior art of Taniguchi teaches a signal processing means 112 as illustrated in Fig. 13. This processing means 112 is a signal operating/controlling means where all output of photodetectors such as LC1, LC2 ... are connected internally. In other words, all the outputs circuits such as signals/currents of LC1 to LCn including its photodetectors are directly connected together to the signal processing means 112 as required by the Applicant's amended feature in Claims 1 and 15.

Claim Objections

3. Claim 16 is objected to because of the following informalities:

Claim 16 should be depends on Claim 1 instead of Claim 7 because Claim 7 has been cancelled.

Appropriate correction is required.

Art Unit: 2627

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

5. Claims 1-5 and 8-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Taniguchi (U.S. Patent 6,091,689).

6. Taniguchi teaches an optical detector system having all of the elements and means as recited in Claims 1-5, 8-14 and 16. For example, Taniguchi teaches the following:

With respect to Claim 1, the optical detector system (Figs. 7 and 12) comprising at least two optical detector units PD1, PD2 (Figs. 7 and 12) for receiving light generated from at least two lasers 4, respectively (Figs. 7 and 12; each laser source 4 has its respective LC1 and LC2; each LC1 and LC2 has photodetectors PD1 and PD2), each optical detector unit LC1/LC2 comprising an array of detector segments PD1, PD2 (Figs. 7 and 12) and at least one output terminal defining a current output of the corresponding optical detector unit (Fig. 7; the optical detector system is an integrated circuit having input/output

Art Unit: 2627

circuits fabricated in a common substrate); and a signal processing circuit 112 (Fig. 13; column 8; lines 50-54; a signal processing circuit is an operating means 112 for an optical disc system 100); wherein at least one current output (detector output) of a first optical detector unit LC1 is connected directly to a corresponding current output of a second optical detector unit LC2 at an output node, (Figs. 13; the optical detector system LC1/LC2 is an integrated circuit having input/output circuits such as current supplied/received circuits fabricated in a common substrate and connected to selector 108); the output mode being directly connected to a processing terminal 112 of the signal processing circuit 112 so that the processing terminal is directly connected to both the at least one current output of the first optical detector unit (LC1LCn) and the corresponding current output of the second optical detector unit 102 (LC1LCn), and wherein only a first detector unit LC1 of the at least two optical detector units is operative (Fig. 7; column 6, 1-6), as determined by an identity of a first laser 4 in use of the at least two lasers (Fig. 7), a second detector unit LC2 of the at least two optical detector units being non-operative by virtue of not receiving light from a second laser 4 of the at least two lasers so that an output of the second detector unit LC2 (Fig. 7) is floating

Art Unit: 2627

(undetermined state), and does not affects output signals produced by the first detector unit 4 (Fig. 7; column 5, lines 14-29).

With respect to Claim 2, the two optical detector units LC1, LC2 (Fig. 7) are of mutually identical design (Fig. 7; same semiconductor material).

With respect to Claim 3, the two optical detector units LC1, LC2 have mutually different wavelength sensitivity ranges (Fig. 7, column 5, lines 14-29).

With respect to Claim 4, each current output of the first optical detector unit LC1 is connected directly to the corresponding current output of the second optical detector unit LC2 at a corresponding output node (Fig. 7; two detectors belongs to the same integrated circuit).

With respect to Claim 5, the second optical detector unit LC2 in the non-operative state presents a high input impedance (Fig. 7; PD1/PD2 are not used and therefore no signal/current flowing).

With respect to Claim 8, the at least one input terminal comprises a current input (Fig. 13; inherent feature where input/output circuits in 102 carries current in form of a signal).

With respect to Claim 9, the one input terminal comprises a

Art Unit: 2627

voltage input, and wherein a terminator resistor is connected to said line (Fig. 13; inherent feature where input/output circuits use terminator resistors to limit currents as a form of a signals).

with respect to Claim 10, the terminator resistor is arranged in the proximity of the signal processing circuit 112 (Fig. 13).

With respect to Claim 11, the terminator resistor is integrated in an IC implementing the signal processing circuit 112 (Fig. 13; inherent feature where input/output circuits use terminator resistors to limit currents in an IC circuit as passive components).

With respect to Claim 12, light beam generating means 4 for generating at least two light beams (Fig. 7); optical components 2 (Fig. 2) for directing and focusing the two light beams in a focal spot on an optical disc 104 (Figs. 2 and 13); optical components 2 (Fig. 2) for directing reflected light beams to respective optical detector units LC1, LC2 of the optical detector system (Figs. 2 and 7).

With respect to Claim 13, the optical components 2 are arranged (reflects) such that the light beams have at least partly common light paths (Fig. 7; both light beams are reflected vertically in a partly common light path (Fig. 7;

Art Unit: 2627

partly common light path is the light path where laser beams travel in a common vertical direction but partly overlapped as the light beams extend in a diverse form).

With respect to Claim 14, the optical components 2 are arranged such that the light beams have completely separate light paths (Fig. 7).

With respect to Claim 16, the disc drive apparatus 100 comprising an optical system according 102, 112 (Fig. 13).

7. Claims 15 and 17 have limitations similar to those treated in the above rejection, and are met by the reference as discussed above.

Art Unit: 2627

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached on (571) 272-7579.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

/Kim-Kwok CHU/

Examiner AU2627

April 6, 2009

(571) 272-7585

/HOA T NGUYEN/

Supervisory Patent Examiner, Art Unit 2627